

PRELIMINARY FCC DRAFT PROPOSAL
Proposal No. 2/L-LEO

Proposal to Amend
Article 8 of the Radio Regulations

MOD

MHz
137 - 137.825

Allocation to Services		
Region 1	Region 2	Region 3
137 - 137.025	SPACE OPERATION (space to Earth) <u>599X</u> METEOROLOGICAL SATELLITE (space to Earth) <u>599X</u> MOBILE-SATELLITE (space-to-Earth) 599B SPACE RESEARCH (space to Earth) <u>599X</u> Fixed Mobile except aeronautical mobile (R) 596 597 598 599 599A	

137.175 - 137.825	SPACE OPERATION (space to Earth) <u>599X</u> METEOROLOGICAL SATELLITE (space to Earth) <u>599X</u> MOBILE-SATELLITE (space-to-Earth) 599B SPACE RESEARCH (space to Earth) <u>599X</u> Fixed Mobile except aeronautical mobile (R) 596 597 598 599 599A
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NOC 596, 597, 598, 599, 599A

ADD 599X Space operation, meteorological satellite service and space research will be co-primary until [1 January 2006], and secondary until [1 January 2010] to protect continuing operations.

Reason

To recognize the movement of space operations, meteorological satellite and space research systems to other segments of the 137 - 138 MHz band and to provide protection to these services during the transition period. Note, however, that in October 1994, Congress mandated that DoD and NOAA combine their polar orbiting meteorological satellite programs. This convergence, as well as the potential convergence with similar European meteorological satellite programs, is in the planning stage and the characteristics and

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frequencies of operation of new satellites are not defined. Consequently, the time frame for migrating meteorological satellites from the 137-137.025 MHz and 137.175-137.825 MHz band is still under discussion. Therefore, the years 2006 and 2010, referenced in the text above, appear in square brackets in the attached proposal for the 137-138 MHz band.

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MOD

MHz
148 - 150.05

Allocation to Services		
Region 1	Region 2	Region 3
148-149.9 FIXED MOBILE except aeronautical mobile (R) MOBILE-SATELLITE (Earth-to-space) MOD599B 608 MOD608A 608C	148-149.9 FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) MOD599B 608 MOD608A 608C	
149.9-150.05 MOBILE-SATELLITE (Earth-to-space) MOD599B MOD609B RADIONAVIGATION- SATELLITE MOD608B 609 609A		

NOC 608, 608C, 609, 609A

MOD 599B

WARC-92 The use of the bands 137 - 138 MHz, 148 -149.9 MHz, 149.9 - 150.05 MHz, 399.9 - 400.05 MHz and 400.15 - 401 MHz by the mobile-satellite service is limited to non-geostationary-satellite systems.

MOD 608A

WARC-92 . Administrations using mobile earth stations in the mobile satellite service shall use the coordination distance threshold method in Recommendation (WP 8D)/TEMP/35 Rev.1) to determine coordination distance thresholds outside national boundaries.

MOD 608B

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WARC-92 The use of the bands 149.9-150.05 MHz and 399.9 - 400.05 MHz by the mobile-satellite service is subject to the application of the coordination and notification procedures set forth in Resolution 46 (WARC-92). The mobile-satellite service shall not constrain the development and use of the radionavigation-satellite service in the 149.9-150.05 MHz and 399.9 - 400.05 bands .

MOD 609B

WARC-92 In the band 149.9-150.05 MHz, the allocation to the mobile-satellite service shall be on a secondary basis until 1 January 1997.

Reason

To allow for maximum flexibility in system implementation the land mobile satellite allocation in the 149.9 - 150.05 MHz band is proposed for any Mobile Satellite service. Modification to No. 608A was required because the $-150 \text{ dB(W/m}^2\text{/kHz)}$ has proven to be operationally unusable. The coordination distance threshold is a more useful approach to facilitate coordination across national boundaries. The removal of 'land' in Footnotes 608B and 609B reflects the change in the allocation table to Mobile Satellite service. The removal of $-150 \text{ dB(W/m}^2\text{/4 kHz)}$ power flux density maximum in No. 608B reflects the fact that there are no fixed or mobile services in this band.

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MOD

MHz
399.9-400.05

Allocation to Services		
Regions 1	Region 2	Region 3
399.9-400.05 RADIONAVIGATION SATELLITE <u>MOBILE SATELLITE</u> (Earth-to-space) 609 645B <u>MOD599B</u> <u>MOD608B</u>		

NOC 609, 645B

Reason

In the 399.9 - 400.05 MHz band the TRANSIT system is being phased out of this band making it available for an Mobile Satellite service allocation.

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MOD	MHz 1525 - 1530		
	Allocation to Services		
	Region 1	Region 2	Region 3
	1525 - 1530 SPACE OPERATION (space-to-Earth)	1525 - 1530 SPACE OPERATION (space-to-Earth)	1525 - 1530 SPACE OPERATION (space-to-Earth)
	FIXED	MOBILE-SATELLITE (space-to-Earth)	FIXED
	<u>MOBILE-SATELLITE</u> <u>(space-to-Earth)</u>	Earth Exploration-Satellite	MOBILE-SATELLITE (space-to-Earth)
		Fixed	Earth Exploration-Satellite
	Earth Exploration-Satellite	Mobile 723	Mobile 723 724
		722 723A 726A 726D	722 726A 726D
	Mobile except aeronautical mobile 724		
	722 723B 725 726A 726D		

NOC 722, 723, 723A, 723B, 724, 725, 726A, 726D

SUP 726B

Reason

To make allocations for Mobile Satellite service.

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MOD		MHz 1530 - 1533	
Allocation to Services			
Region 1		Region 2	
1530 - 1533 SPACE OPERATION (space-to-Earth) <u>MOBILE-SATELLITE</u> (space-to-Earth) Earth Exploration-Satellite Fixed Mobile except aeronautical mobile 722 723B 726A <u>MOD726C</u> 726D		1530 - 1533 SPACE OPERATION (space-to-Earth) <u>MOBILE-SATELLITE</u> (space-to-Earth) Earth Exploration-Satellite Fixed Mobile 723 722 726A MOD726C 726D	

MOD 726C In the bands 1530 - 1544 MHz and 1626.5 - 1645.5 MHz, the maritime mobile-satellite distress and safety communications shall have priority access and immediate availability over all other mobile-satellite communications operating under this provision. Communications of mobile-satellite system stations not participating in the global maritime distress and safety system (GMDSS) shall operate on a secondary basis to distress and safety communications of stations operating in the GMDSS. Account shall be taken of the priority of safety-related communications in the other mobile-satellite services.

Reason

To make allocations generic and to provide priority access and immediate availability for maritime distress and safety communications.

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MOD

MHz
1533 - 1559

Allocation to Services		
Region 1	Region 2	Region 3
1533 - 1535 SPACE OPERATION (space-to-Earth) <u>MOBILE-SATELLITE (space-to-Earth)</u> Earth Exploration-Satellite Fixed Mobile except aeronautical mobile 722 723B 726A <u>MOD726C</u> 726D	1533 - 1535 SPACE OPERATION (space-to-Earth) <u>MOBILE-SATELLITE (space-to-Earth)</u> Earth Exploration-Satellite Fixed Mobile 723 722 726A MOD726C 726D	
1535 - 1544 <u>MOBILE-SATELLITE (space-to-Earth)</u> 722 726A MOD726C 726D 727		
1544 - 1545 <u>MOBILE-SATELLITE (space-to-Earth)</u> 722 726D 727 727A		
1545 - 1555 <u>MOBILE-SATELLITE (space-to-Earth)</u> 722 726A 726D 727 729 730 <u>MOD730C</u>		
1555 - 1559 <u>MOBILE-SATELLITE (space-to-Earth)</u> 722 726A 726D 727 730 MOD730C		

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NOC 727, 727A, 729, 730

SUP 729A

SUP730A

MOD 730C In the bands 1545 - 1559 MHz and 1646.5 - 1660.5 MHz, the aeronautical mobile-satellite (R) service shall have priority access and immediate availability over all other mobile-satellite communications within a network operating under this provision; mobile-satellite systems shall be interoperable with the aeronautical mobile-satellite (R) service; account shall be taken of the priority of safety-related communications in the other mobile-satellite services.

SUP 730B

Reason

To make allocations available for all Mobile Satellite services and to provide priority access and immediate availability for aeronautical and maritime distress and safety communications.

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MOD **MHz**
1610 - 1626.5

Allocation of Services		
Region 1	Region 2	Region 3
1610 -1610.6 MOBILE-SATELLITE (Earth-to-space) AERONAUTICAL RADIONAVIGATION 722 727 730 731 MOD731E 732 733 733A 733B 733E 733F	1610 -1610.6 MOBILE-SATELLITE (Earth-to-space) AERONAUTICAL RADIONAVIGATION RADIODETERMINATION- SATELLITE (Earth-to -space) 722 MOD731E 732 733 733A 733C 733D 733E	1610 -1610.6 MOBILE-SATELLITE (Earth-to-space) AERONAUTICAL RADIONAVIGATION Radiodetermination- Satellite (Earth-to -space) 722 727 730 731 MOD731E 732 733 733A 733B 733E
1610.6 - 1613.8 MOBILE-SATELLITE (Earth-to-space) RADIO ASTRONOMY AERONAUTICAL RADIONAVIGATION 722 727 730 731 MOD731E 732 733 733A 733B 733E 733F 734	1610.6 - 1613.8 MOBILE-SATELLITE (Earth-to-space) RADIO ASTRONOMY AERONAUTICAL RADIONAVIGATION RADIODETERMINATION- SATELLITE (Earth-to- space) 722 MOD731E 732 733 733A 733C 733D 733E 734	1610.6 - 1613.8 MOBILE-SATELLITE (Earth-to-space) RADIO ASTRONOMY AERONAUTICAL RADIONAVIGATION Radiodetermination- Satellite (Earth-to -space) 722 727 730 731 MOD731E 732 733 733A 733B 733E 734
1613.8 -1626.5 MOBILE-SATELLITE (Earth-to-space) AERONAUTICAL RADIONAVIGATION Mobile-Satellite (space-to-Earth) 722 727 730 731 MOD731E 731F 732 733 733A 733B 733E 733F	1613.8 -1626.5 MOBILE-SATELLITE (Earth-to-space) AERONAUTICAL RADIONAVIGATION RADIODETERMINATION- SATELLITE (Earth-to -space) Mobile-Satellite (space-to-Earth) 722 MOD731E 731F 732 733 733A 733C 733D 733E	1613.8 -1626.5 MOBILE-SATELLITE (Earth-to-space) AERONAUTICAL RADIONAVIGATION Radiodetermination- Satellite (Earth-to - space) Mobile-Satellite (space-to-Earth) 722 727 730 731 MOD731E 731F 732 733 733A 733B 733E

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NOC 731 731F 732 733 733A 733B 733E 733F 734

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MOD 731E The use of the band 1610-1626.5 MHz by the mobile-satellite service (Earth-to-space) and by the radiodetermination-satellite service (Earth-to-space) is subject to the application of the coordination and notification procedures set forth in Resolution 46 (WARC-92). A mobile earth station operating in either of the services in this band shall not produce a mean e.i.r.p. density in excess of -15 dB (W/4 kHz) in the part of the band used by systems operating in accordance with the provisions of No. 732, unless otherwise agreed by the affected administrations. In the part of the band where such systems are not operating, a value of -3 dB (W/4 kHz) is applicable. Application of the provisions of No. 953 apply to the use of the 1610 - 1626.5 MHz band.

Reason

Inclusion of the term "mean" is intended to clarify how the e.i.r.p. density limit should be measured. The text proposed for deletion at the end of this provision is unnecessary to protect the primary allocation status of the identified services and creates confusion and ambiguity concerning the primary status of the mobile-satellite service in the 1610-1626.5 MHz band.

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MOD **MHz**
1626.5 - 1660.5

Allocation to Services						
Region 1			Region 2		Region 3	
1626.5 - 1631.5 <u>MOBILE-SATELLITE</u> <u>(Earth-to-space)</u> 722 726A <u>MOD726C</u> 726D 727 730			1626.5 - 1631.5 MOBILE-SATELLITE (Earth-to-space) 722 726A MOD726C 726D 727 730			
1631.5 - 1634.5			<u>MOBILE-SATELLITE (Earth-to-space)</u> 722 726A MOD726C 726D 727 730			
1634.5 - 1645.5			MOBILE-SATELLITE (Earth-to-space) 722 726A MOD726C 726D 727 730			
1645.5 - 1646.5			MOBILE-SATELLITE (Earth-to-space) 722 726D 734B			
1646.5 - 1656.5			<u>MOBILE-SATELLITE (Earth-to-space)</u> 722 726A 726D 727 730 <u>MOD730C</u> 735			
1656.5 - 1660			<u>MOBILE-SATELLITE (Earth-to-space)</u> 722 726A 726D 727 730 MOD730C			
1660 - 1660.5			RADIO ASTRONOMY <u>MOBILE-SATELLITE (Earth-to-space)</u> 722 726A 726D MOD730C 736			

NOC 734C

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Reason

To make allocations available to all Mobile Satellite services and to provide priority access and immediate availability for aeronautical and maritime distress and safety communications.

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MOD

MHz
1675 - 1710

Allocation to Services		
Region 1	Region 2	Region 3
1675 - 1690 METEOROLOGICAL AIDS FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile <u>MOBILE SATELLITE (Earth-to-space)</u> 722 735A		
1690 - 1700 METEOROLOGICAL L AIDS METEOROLOGICAL L SATELLITE (space-to-Earth) <u>MOBILE-SATELLITE</u> <u>(Earth-to-space)</u> Fixed Mobile except aeronautical mobile 671 722 741	1690 - 1700 METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) <u>MOBILE-SATELLITE</u> <u>(Earth-to-space)</u> 671 722 735A 740 742	
1700 - 1710 FIXED METEOROLOGICAL- L- SATELLITE (space-to-Earth) <u>MOBILE-SATELLITE</u> <u>(Earth-to-space)</u> Mobile except aeronautical mobile 671 722	1700 - 1710 FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile <u>MOBILE-SATELLITE (Earth-to-space)</u> 671 722 735A 743	

NOC 671, 722, 740, 741, 742, 743, [735A]

Note: If ITU-R Working Party 7C's draft new Recommendation regarding sharing between MetSats and MSS is approved by the Radiocommunication assembly or prior to WRC-95, the

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MetSat service could be suppressed from footnote 735A. Sharing between MetAids and MSS is also being addressed in Working Party 7C. If the appropriate sharing criteria are developed and approved for this situation, MetAids could also be suppressed. However, that work is not yet completed.

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MOD **MHz**
1930 - 2025

Allocation to Services		
Region 1	Region 2	Region 3
<u>1930 - 1945</u> FIXED MOBILE 746A	<u>1930 - 1945</u> FIXED MOBILE 746A	<u>1930 - 1945</u> FIXED MOBILE 746A
<u>1945 - 1970</u> FIXED MOBILE 746A	<u>1945 - 1970</u> FIXED MOBILE Mobile-Satellite (Earth-to-space) 746A	<u>1945 - 1970</u> FIXED MOBILE 746A
<u>1970 - 1980</u> FIXED MOBILE 746A	<u>1970 - 1980</u> FIXED MOBILE <u>Mobile-Satellite</u> (Earth-to-space) 746A MOD746B MOD746C	<u>1970 - 1980</u> FIXED MOBILE 746A
<u>1980 -1985</u> FIXED MOBILE 746A	<u>1980 -1985</u> FIXED MOBILE Mobile-Satellite (Earth-to-space) 746A MOD746B MOD746C	<u>1980 -1985</u> FIXED MOBILE 746A
<u>1985 - 2010</u> FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) 746A MOD746B MOD746C		

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2010 - 2025

FIXED

MOBILE

MOBILE-SATELLITE (Earth-to-space)

746A MOD746B

NOC 746A

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MOD 746B The use of the bands 1985 - 2025 MHz and 2160 - 2200 MHz by the mobile-satellite service shall not commence before 1 January 2005 and is subject to the application of the coordination and notification procedures set forth in Resolution 46 (WARC-92). In the band 2160-2200 MHz coordination of space stations of the mobile-satellite service with respect to terrestrial services is required only if the power flux density or Fractional Degradation Percentage produced at the Earth's Surface exceeds the threshold , in Recommendation (TG 2-2/TEMP/89 (Rev2)). In respect of assignments operating in this band, the provisions of Section II, paragraph 2.2 of Resolution 46 (WARC-92) shall also be applied to geostationary transmitting space stations with respect to terrestrial stations.

MOD 746C In the United States, the use of the bands 1985 -2025 MHz and 2160 - 2200 MHz by the mobile-satellite service shall not commence before 1 January 1996.

MHz
MOD 2160 -2170

Allocation of Services		
Region 1	Region 2	Region 3
2160 - 2170 FIXED MOBILE <u>MOBILE-SATELLITE</u> <u>(space-to-Earth)</u>	2160 - 2170 FIXED MOBILE MOBILE-SATELLITE (space-to-Earth)	2160 - 2170 FIXED MOBILE <u>MOBILE-SATELLITE</u> <u>(space-to-Earth)</u>
746A <u>MOD746B</u> <u>MOD746C</u>	746A MOD746B MOD746C	746A <u>MOD746B</u> <u>MOD746C</u>

Reason

To make allocations to the Mobile Satellite service on a global basis.

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MHz 2483.5 - 2500		
Allocation of Services		
Region 1	Region 2	Region 3
2483.5 - 2500 FIXED MOBILE MOBILE-SATELLITE (space-to-Earth) Radiolocation 733F 752 753 753A 753B 753C MOD753F	2483.5 - 2500 FIXED MOBILE MOBILE-SATELLITE (space-to-Earth) RADIOLOCATION RADIODETERMINATIO N-SATELLITE (space-to-Earth) 753A 752 753D MOD753F	2483.5 - 2500 FIXED MOBILE MOBILE-SATELLITE (space-to-Earth) RADIOLOCATION Radiodetermination- Satellite (space-to-Earth) 753A 752 753C MOD753F

NOC 733F, 752, 753, 753A, 753B, 753C

MOD 753F The use of the band 2483.5-2500 MHz by the mobile-satellite service and the radiodetermination-satellite service is subject to the application of the coordination and notification procedures set forth in Resolution 46 (WARC-92). Coordination of space stations of the mobile-satellite and radiodetermination-satellite services with respect to terrestrial services is required only if the power-flux density produced at the Earth's surface exceeds:

-150 dB (W/m²) in any 4 kHz band for angles of arrival between 0 and 5 degrees above the horizontal plane;

-150 + 0.65 (δ-5) dB (W/m²) in any 4 kHz band for angles of arrival δ (in degrees) between 5 and 25 degrees above the horizontal plane;

-137 dB (W/m²) in any 4 kHz band for angles of arrival between 25 and 90 degrees above the horizontal plane.

These limits relate to the power flux-density which would be obtained under assumed free-space conditions. In respect of assignments operating in this band, the provisions of Section II, paragraph 2.2 of Resolution 46 (WARC-92) shall also be applied to geostationary transmitting space stations with respect to terrestrial stations.

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Reason

To facilitate the introduction of mobile-satellite systems in this band while providing adequate protection of analog point-to-point and multipoint fixed systems in the band.

Proposal No. 4/88

**Proposal to Amend
Article 8 of the Radio Regulations****MOD 855A**

In the band 13.75-14.0 GHz, the e.i.r.p. of any emission from an earth station in the fixed-satellite service shall be at least 68 dBW, and should not exceed 85 dBW, with a minimum antenna diameter of 4.5 meters. In addition the e.i.r.p., averaged over one second, radiated by a station in the radiolocation and radionavigation services towards the geostationary orbit shall not exceed 59 dBW. . See Recommendation ITU-R S.1068.

MOD 855B

In the band 13.75-14.0 GHz geostationary space stations in the space research service, for which information for advance publication has been received by the ITU-R prior to 31 January 1992, shall operate on an equal basis with stations in the fixed-satellite service; after that date new geostationary space stations in the space research service will operate on a secondary basis. Until 1 January 2000, stations in the fixed-satellite service shall not cause harmful interference to non-geostationary space stations in the space research and earth exploration-satellite services; after that date these non-geostationary space stations will operate on a secondary basis in relation to the fixed-satellite service. See Recommendations ITU-R S.1069 and ITU-R SA.1071.

Reasons:

Resolves 1 of Resolution 112 called for studies, with respect to the values given in No. 855A of the Radio Regulations relating to allocations in the band 13.75-14.0 GHz and to report the outcome at least one year before the next competent conference. ITU-R Task Group 4-4 was formed to perform the necessary studies. This Task Group completed its studies and confirmed the values given in No. 855A. Recommendation ITU-R S.1068 was developed with respect to the sharing of the fixed-satellite service with the radiolocation and radionavigation services.

Resolves 2 of Resolution 112 called for studies with respect to the technical compatibility between the primary allocation to the fixed-satellite service (Earth-to-space) and the secondary allocations to the space research and Earth exploration-satellite services. ITU-R Task group 7-3 was established to study this compatibility taking into account the time frames given in No. 855B. Task Group 7-3 developed protection criteria for the secondary services. Task Group 4-4 considered constraints which would apply to the fixed-satellite service to meet these protection criteria within the time frames given in No. 855B. The two Task Groups, in close consultation, developed two companion Recommendations: ITU-R S.1069 and ITU-R SA.1071. These Recommendations provide further technical details with respect to the compatibility between the fixed-satellite services and these secondary services.

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Proposal No. 4/SS

Proposal to Amend
Resolution 112 of the Radio Regulations

SUP

RESOLUTION No. 112 (WARC-92)

Reason:

Necessary studies called for in Resolution 112 have been conducted and recommendations have been approved. With modification to Nos. 855A and 855B Resolution 112 is no longer required.

APPENDIX 2

Industry Advisory Committee Recommended Candidate Bands for Additional Allocations for MSS below 1 GHz

FIG. 2
LOW EARTH ORBIT RSS BELOW 1 GHz
CANDIDATE BANDS FOR ADDITIONAL ALLOCATIONS¹⁾

Attachment C

12 December 1994

CANDIDATE FREQUENCY BAND (MHz)	EXISTING ALLOCATIONS AND USE			POTENTIAL LEO RSS ALLOCATION	POTENTIAL SHARING SCENARIOS	COMMENTS/NOTES
	U.S.		INTERNATIONAL			
	NON-GOVERNMENT	GOVERNMENT				
PRIORITY ONE CANDIDATES						
(225-400 MHz) 225-235 MHz (Space to Earth) and 380-399 MHz (Earth to Space) 312-315 MHz (Earth-to Space) and 387-390 MHz (Space to Earth)	None	Fixed (FN 627 Military Only) Mobile (FN 627 Military Only) Mobile Satellite (FN G100 235-322 and 335-399.9, Military Only) These bands are heavily used throughout the U.S. for critical military air traffic control and tactical training communications. Specific functions of tactical training include air-ground-air communications for combat weapons training carried out at and in the vicinity of all major air bases and military training areas in the U.S. Tactical and strategic military satellite communications, essential to linking the activities of ground, air, surface, and subsurface mobile platforms, are conducted in this band under G100. Also, rocket test and test data telemetry operations are performed in this band.	312-315 & 387-390 MHz Allocated Secondary to Non-GEO at WARC-92 (FN 641, Art 14) NATO Military Use <u>Differs by Region/Freq.</u> BROADCASTING (African countries only, 223-230 MHz) FIXED MOBILE AERONAUTICAL SPACE OPS RADIO ASTRONOMY	Uplink and Downlink	CDMA - Low output power spread over multiple MHz in one uplink and one downlink band with 10% separation. Non-interference/no protection from existing services - Low PFD in downlink FDMA - Band segmentation - Dynamic channel avoidance	FCC Has Proposed Allocation of 5 MHz at 225-230 MHz and 20 MHz at 380-400 MHz. Dependent on NATO Agreement. International 267-272 MHz Space Ops Space to Earth 272-273 MHz SPACE OPS Space to Earth 380-400 MHz possible IETRA for Europe (EPI (ERO) planning 216-240 MHz for DAB after year 2005) Mobile Satellite service operating as secondary in 312-315 MHz and 387-390 MHz under Article 14 outside of U.S. (FN 641)
399.9-400.05 MHz (both directions)	RADIONAVIGATION SATELLITE Commercial shipping makes extensive use of TRANSIT-SAT signals for radionavigation.	RADIONAVIGATION SATELLITE TRANSIT SAT (polar orbiting satellite) downlink transmissions in this band support worldwide navigation which expires 1 January 1997. Government use of the mobile satellite service is limited by US319 to earth stations operating with nongovernment satellites.	Region - All RADIONAVIGATION SATELLITE	Uplink or downlink	FDMA and CDMA Dynamic Channel Avoidance Possible In-Band Feeder Link	Allocated in U.S. as primary uplink in MWG process beginning 1/1/97, included on WRC 95 preliminary agenda.